What is claimed is:

1. A disk array apparatus communicably connected to a host computer and/or another disk array apparatus incapable of establishing a direct connection with the host computer in which data coming from the host computer is stored in a storage region as a result of addition of a storage region of the another disk array apparatus to a storage region of the disk array apparatus, the disk array apparatus comprising:

a logical unit formation section for forming a plurality of logical units from the storage region of the addition result to be accessed by the host computer;

a data writing section for writing, to each of the logical units, data coming from the host computer and/or the another disk array apparatus;

a first check section for checking a validity of a reading request coming from the host computer for reading the data stored in the disk array apparatus and/or the another disk array apparatus;

a data transfer section for, when the first check section determines that the data reading request is valid, transferring the data stored in each of the logical units to the host computer based on the data reading request;

a second check section for checking a validity of an instruction coming from the host computer for forming a pair between, out of the plurality of logical units, the logical

unit formed from the storage region of the disk array apparatus and the logical unit formed from the storage region of the another disk array apparatus;

a pair formation section for forming the pair when the second check section determines that the instruction from the host computer is valid as a result of instruction check; and

a copy section for, when the logical unit formed from the storage region of the disk array apparatus is accessed by the host computer for writing, copying writing data to the other logical unit forming the pair with the logical unit, wherein

utilizing an interrelation between information about the plurality of logical units and information about the storage region as the addition result, the copy section copies the writing data to any actual storage region of the another disk array apparatus.

2. The disk array apparatus according to claim 1, wherein

the data reading request includes a command for the disk array apparatus to acquire the data stored in the another disk array apparatus, and based on the command, another command for the disk array apparatus to transfer the acquired data to the host computer.

3. The disk array apparatus according to claim 1, wherein

the first check section checks the validity of both the command for the data acquisition and the command for the data transfer to the host computer.

4. The disk array apparatus according to claim 3, wherein

when the first check section determines that neither or either of the commands is valid as a result of command check, a report indicative of error is made to the host computer.

5. The disk array apparatus according to claim 1, further comprising

a data creation section for, when the first check section determines that the command for the data acquisition is valid, creating data based on the command for transfer to the host computer.

6. The disk array apparatus according to claim 1, wherein

the data transfer section transfers the data created by the data creation section after checking that the host computer is a sender of the data reading request.

7. The disk array apparatus according to claim 1, wherein

the data writing section writes the data transferred from the another disk array apparatus to the disk array apparatus through mapping to the storage region of the disk array apparatus being a virtual device connected to the logical units.

8. A disk array apparatus communicably connected to a host computer and/or another disk array apparatus incapable of establishing a direct connection with the host computer in which data coming from the host computer is stored in a storage region as a result of addition of a storage region of the another disk array apparatus to a storage region of the disk array

apparatus, the disk array apparatus comprising:

a logical unit formation section for forming a plurality of logical units from the storage region of the addition result to be accessed by the host computer;

a mapping table retention section at least including identifying information for a virtual device derived by virtualizing the storage region of the disk array apparatus, and retaining a mapping table showing an interrelation between the virtual device and the storage region of the another disk array apparatus mapped to the virtual device;

a search section for, when a data reading request including at least the identifying information for the virtual device comes from the host computer, searching the mapping table for a target virtual device based on the identifying information;

a data transfer section for reading data from the virtual device found by the search section for transfer to the host computer;

a check section for checking a validity of an instruction coming from the host computer for forming a pair between, out of the plurality of logical units, the logical unit formed from the storage region of the disk array apparatus and the logical unit formed from the storage region of the another disk array apparatus;

a pair formation section for forming the pair when the check section determines that the instruction from the host

computer is valid as a result of instruction check; and

a copy section for, when the logical unit formed from the storage region of the disk array apparatus is accessed by the host computer for writing, copying writing data to the other logical unit forming the pair with the logical unit, wherein

utilizing an interrelation between information about the plurality of logical units and information about the storage region as the addition result, the copy section copies the writing data to any actual storage region of the another disk array apparatus.

9. The disk array apparatus according to claim 8, wherein

to the virtual device, data of another storage region of the disk array apparatus is also copied, and

the data reading request from the host computer includes identifying information for the another storage region.

10. The disk array apparatus according to claim 8, wherein

the data transferred by the data transfer section from the disk array apparatus to the host computer is further transferred from the host computer to another host computer that is never directly connected to the disk array apparatus.

11. A disk array apparatus communicably connected to a host computer and/or another disk array apparatus incapable of establishing a direct connection with the host computer in which data coming from the host computer is stored in a storage

region as a result of addition of a storage region of the another disk array apparatus to a storage region of the disk array apparatus, the disk array apparatus comprising:

a logical unit formation section for forming a plurality of logical units from the storage region of the addition result to be accessed by the host computer;

a data writing section for writing, to each of the logical units, data coming from the host computer and/or the another disk array apparatus;

a check section for checking a validity of an instruction coming from the host computer for forming a pair between, out of the plurality of logical units, the logical unit formed from the storage region of the disk array apparatus and the logical unit formed from the storage region of the another disk array apparatus;

a pair formation section for forming the pair when the check section determines that the instruction from the host computer is valid as a result of instruction check; and

a copy section for, when the logical unit formed from the storage region of the disk array apparatus is accessed by the host computer for writing, copying writing data to the other logical unit forming the pair with the logical unit, wherein

utilizing an interrelation between information about the plurality of logical units and information about the storage region as the addition result, the copy section copies the

writing data to any actual storage region of the another disk array apparatus.

12. The disk array apparatus according to claim 11, wherein

when the check section determines that the pair formation instruction is not valid as a result of instruction check, a report indicative of error is made to the host computer.

13. The disk array apparatus according to claim 11, wherein

when the pair formation section determines that a problem occurs in a process of the pair formation, a report indicative of error is made to the host computer.

14. A disk array apparatus communicably connected to a first host computer and/or another disk array apparatus connected to a second host computer in which data coming from the first host computer is stored in a storage region as a result of addition of a storage region of the another disk array apparatus to a storage region of the disk array apparatus, the disk array apparatus comprising:

a logical unit formation section for forming a plurality of logical units from the storage region of the addition result to be accessed by the host computer;

a data writing section for writing, to each of the logical units, data coming from the first host computer and/or the another disk array apparatus;

a check section for checking a validity of an instruction coming from the first host computer for forming a pair between, out of the plurality of logical units, the logical unit formed from the storage region of the disk array apparatus and the logical unit formed from the storage region of the another disk array apparatus;

a pair formation section for forming the pair when the check section determines that the instruction from the first host computer is valid as a result of instruction check;

a copy section for, when the logical unit formed from the storage region of the disk array apparatus is accessed by the first host computer for writing, copying writing data to the other logical unit forming the pair with the logical unit; and

a prohibition section for, when a reading request comes from the second host computer for the data stored in the disk array apparatus and/or the another disk array apparatus, prohibiting the second host computer to make an access to the another disk array apparatus until a process ends after started responding to the data reading request, wherein

utilizing an interrelation between information about the plurality of logical units and information about the storage region as the addition result, the copy section copies the writing data to any actual storage region of the another disk array apparatus.

15. The disk array apparatus according to claim 14, wherein

the access prohibition is issuing of a reserve command by the prohibition section to the another disk array apparatus to protect the data of the another disk array apparatus from the access by the second host computer thereto.

16. The disk array apparatus according to claim 14, wherein

to the virtual device, data of the another storage region of the disk array apparatus is also copied.

17. A control method of a disk array apparatus communicably connected to a host computer and/or another disk array apparatus incapable of establishing a direct connection with the host computer in which data coming from the host computer is stored in a storage region as a result of addition of a storage region of the another disk array apparatus to a storage region of the disk array apparatus, the control method comprising:

a logical unit formation step of forming a plurality of logical units from the storage region of the addition result to be accessed by the host computer;

a data writing step of writing, to each of the logical units, data coming from the host computer and/or the another disk array apparatus;

a first check step of checking a validity of a reading request coming from the host computer for reading the data stored

in the disk array apparatus and/or the another disk array apparatus;

a data transfer step of, when the first check step determines that the data reading request is valid, transferring the data stored in each of the logical units to the host computer based on the data reading request;

a second check step of checking a validity of an instruction coming from the host computer for forming a pair between, out of the plurality of logical units, the logical unit formed from the storage region of the disk array apparatus and the logical unit formed from the storage region of the another disk array apparatus;

a pair formation step of forming the pair when the second check step determines that the instruction from the host computer is valid as a result of instruction check; and

a writing data copy step of, when the logical unit formed from the storage region of the disk array apparatus is accessed by the host computer for writing, copying writing data to the other logical unit forming the pair with the logical unit, wherein

utilizing an interrelation between information about the plurality of logical units and information about the storage region as the addition result, the writing data copy step copies the writing data to any actual storage region of the another disk array apparatus.

18. A control method of a disk array apparatus communicably connected to a host computer and/or another disk array apparatus incapable of establishing a direct connection with the host computer in which data coming from the host computer is stored in a storage region as a result of addition of a storage region of the another disk array apparatus to a storage region of the disk array apparatus, the control method comprising:

a logical unit formation step of forming a plurality of logical units from the storage region of the addition result to be accessed by the host computer;

a mapping table retention step at least including identifying information for a virtual device derived by virtualizing the storage region of the disk array apparatus, and retaining a mapping table showing an interrelation between the virtual device and the storage region of the another disk array apparatus mapped to the virtual device;

a search step of, when a data reading request including at least the identifying information for the virtual device comes from the host computer, searching the mapping table for a target virtual device based on the identifying information;

a data transfer step of reading data from the virtual device found by the search step for transfer to the host computer;

a check step of checking a validity of an instruction coming from the host computer for forming a pair between, out of the plurality of logical units, the logical unit formed from

the storage region of the disk array apparatus and the logical unit formed from the storage region of the another disk array apparatus;

a pair formation step of forming the pair when the check step determines that the instruction from the host computer is valid as a result of instruction check; and

a writing data copy step of, when the logical unit formed from the storage region of the disk array apparatus is accessed by the host computer for writing, copying writing data to the other logical unit forming the pair with the logical unit, wherein

utilizing an interrelation between information about the plurality of logical units and information about the storage region as the addition result, the writing data copy step copies the writing data to any actual storage region of the another disk array apparatus.

19. A control method of a disk array apparatus communicably connected to a host computer and/or another disk array apparatus incapable of establishing a direct connection with the host computer in which data coming from the host computer is stored in a storage region as a result of addition of a storage region of the another disk array apparatus to a storage region of the disk array apparatus, the control method comprising:

a logical unit formation step of forming a plurality of logical units from the storage region of the addition result

to be accessed by the host computer;

a data writing step of writing, to each of the logical units, data coming from the host computer and/or the another disk array apparatus;

a check step of checking a validity of an instruction coming from the host computer for forming a pair between, out of the plurality of logical units, the logical unit formed from the storage region of the disk array apparatus and the logical unit formed from the storage region of the another disk array apparatus;

a pair formation step of forming the pair when the check step determines that the instruction from the host computer is valid as a result of instruction check; and

a writing data copy step of, when the logical unit formed from the storage region of the disk array apparatus is accessed by the host computer for writing, copying writing data to the other logical unit forming the pair with the logical unit, wherein

utilizing an interrelation between information about the plurality of logical units and information about the storage region as the addition result, the writing data copy step copies the writing data to any actual storage region of the another disk array apparatus.

20. A control method of a disk array apparatus communicably connected to a first host computer and/or another

disk array apparatus connected to a second host computer in which data coming from the first host computer is stored in a storage region as a result of addition of a storage region of the another disk array apparatus to a storage region of the disk array apparatus, the control method comprising:

a logical unit formation step of forming a plurality of logical units from the storage region of the addition result to be accessed by the host computer;

a data writing step of writing, to each of the logical units, data coming from the first host computer and/or the another disk array apparatus;

a check step of checking a validity of an instruction coming from the first host computer for forming a pair between, out of the plurality of logical units, the logical unit formed from the storage region of the disk array apparatus and the logical unit formed from the storage region of the another disk array apparatus;

a pair formation step of forming the pair when the check step determines that the instruction from the first host computer is valid as a result of instruction check;

a writing data copy step of, when the logical unit formed from the storage region of the disk array apparatus is accessed by the first host computer for writing, copying writing data to the other logical unit forming the pair with the logical unit; and

a prohibition step of, when a reading request comes from the second host computer for the data stored in the disk array apparatus and/or the another disk array apparatus, prohibiting the second host computer to make an access to the another disk array apparatus until a process ends after started responding to the data reading request, wherein

utilizing an interrelation between information about the plurality of logical units and information about the storage region as the addition result, the writing data copy step copies the writing data to any actual storage region of the another disk array apparatus.